APPENDIX M-2

ATTACC MODEL RESULTS, SCHOFIELD BARRACKS AND POHAKULOA TRAINING AREA

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20 March 2003

INFORMATION PAPER

SUBJECT: Transformation Training Impact at USARHAW

1. General. In support of the U.S. Army –Hawaii Transformation Environmental Impact Statement (EIS) I was asked to identify the training impact of the current units stationed in Hawaii, estimate the training impact after transformation of the 2nd Brigade, 25th ID (L) to a Stryker Brigade Combat Team (SBCT), and compare the "before and after" results. The Army Training and Testing Area Carrying Capacity (ATTACC) methodology was the tool used to accomplish these tasks, as it had been used previously in support of the U.S. Army - Alaska and Fort Polk Transformation EIS.

2. Discussion.

a. A list of reference materials is at Enclosure 1.

b. Worksheets and graphs containing unit MIMs calculations and totals are at Enclosure 2.

c. The ATTACC Methodology quantifies the impacts of vehicles (Training Impact Factors) and training events (Event Severity Factors) in relation to a standard vehicle (M1A1 Tank) and event (Armor Battalion FTX). The result is a Maneuver Impact Mile (MIM). These factors were developed jointly with observer-controllers (O/C) at both CONUS Combat Training Centers. These factors were then linked to the (HQDA) Battalion Level Training Model (BLTM), which quantifies how many annual miles a specific vehicle in a specific unit will travel in specific training events. As a result, tables in the ATTACC Training Model (ATM) show the number of annual MIMs for almost all Army units.

d. Using the ATM tables, I calculated the annual MIMs for current 2nd Brigade,(8700) and the remaining 25 ID (L) units (40,200). Of those 40,200 MIMS, 15,500 belong to the Engineer Battalion (Cbt Hvy). A more thorough analysis of the Engineer Battalion's specific training events and training locations may reduce that number in both current

and future estimates. Additionally, I estimated the training impact for Army National Guard, Army Reserve and Marine Corps units that train in Hawaii. The current estimated total training impact for units training in Hawaii is 51,000 MIMs.

e. I reviewed the standard training records provided by the Range Facility Management Support System v. 3.5 (RFMSS) Training Utilization Reports. I reviewed these reports for the infantry battalions. I also discussed training locations with the Range Operations staff, using their training area maps. This helped identify specific training locations. As a result I allocated the MIMs as follows:

East Range	11,680
Schofield Bks	16,740
Dillingham	1710
Kahuku	7210
Pohakuloa (PTA)	13,660

f. Estimating future MIMs for a Transformed 2nd Brigade required several adjustments to the ATTACC Training Impact Factors, which measure the vehicle portion of the training load. In our previous analyses we gave the Stryker a Vehicle Severity Factor (VSF) of 0.86, equivalent to a M2 Bradley Infantry Fighting Vehicle. After reviewing the Light Armored Vehicle (LAV)Impact Studies (Ayers, et.al.) conducted in Yakima and Schofield Barracks, and discussing it with one of the authors and ATTACC Team member (A. Anderson) we concluded the Stryker vehicle severity more closely resembled that of a M113A3. The M113A3 VSF is 0.65. Not wanting to make a radical change, we adjusted the Stryker VSF to the midpoint, 0.75. We had also previously given the Stryker a Vehicle Off-road Factor (VOF) of 0.9, equivalent to a Bradley and the M113A3. In discussions with the USARPAC and USARHAW staff we concluded that the many limitations to off-road maneuver in Hawaii training areas would reduce the Stryker VOF to 0.6, equivalent to a HMMWV. This reduction in two vehicle impact factors reduced the total Stryker brigade training load (MIMs) by 20%.

g. The Stryker Brigade annual MIMs are 116,900 and the remainder of the 25 ID(L) units are 36,900 MIMs. The majority of the increase in the Stryker Brigade comes from the 3 transformed infantry battalions and the new RSTA Squadron. The total predicted training impact for

transformed units training in Hawaii is 155,900 MIMs. This is a three-fold increase over current training impact.

h. The next step in this process is the distribution of future Transformed training impact over Hawaii training lands. At the request of USARPAC and USARHAW staffs we included as available maneuver area the proposed 23,000 acre land purchase adjacent to PTA. After a discussion with the Transformation Office staff on a very preliminary Stryker Brigade training strategy, I was able to understand where platoon, company and battalion "unopposed" and force-on-force training would occur. Brigade size training will occur at one of the Combat Training Centers. As a result I allocated the MIMs as follows:

East Range	19,145	
Schofield Bks	25,855	Note 1.
Dillingham	4335	
Kahuku	13,770	
Pohakuloa(PTA)	30,931	
Keamuku	61,862	

Note 1. Schofield Bks includes the proposed South Range land purchase.

3. Conclusions. Through the use of the ATTACC Methodology and the process described in the previous paragraphs, we predict two significant increases in training impact, measured in MIMs, as a result of the Transformation of USARHAW forces. We predict the overall training impact to increase 3 times. We predict the training impact on the island of Hawaii (PTA + the proposed land purchase) to increase 7 times. As Stryker tactical and training doctrines emerge, we may find that a significant portion of the Stryker training is dismounted infantry training, which would reduce the training impact.

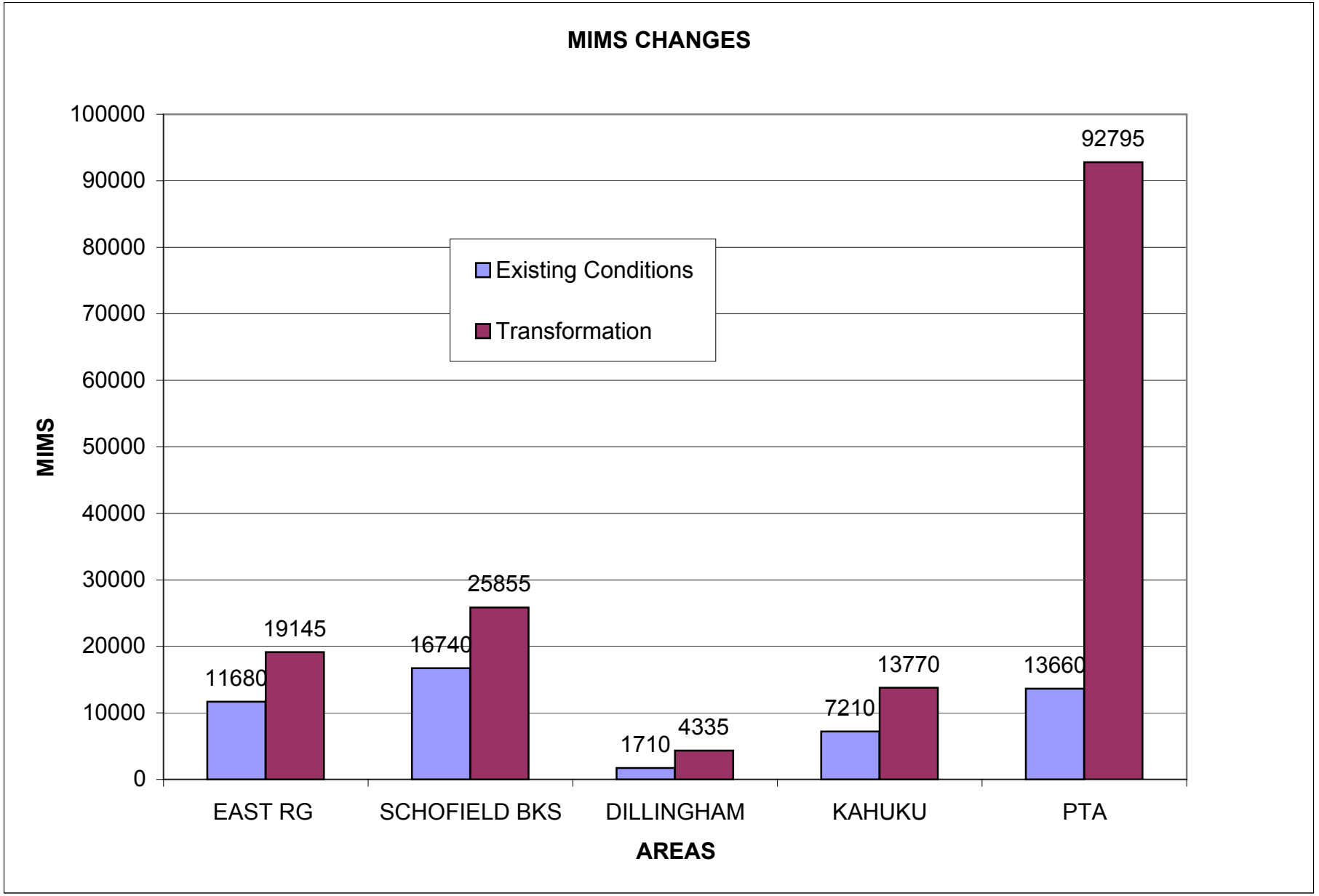
Enclosure 1 (References)

TC 25-1, Training Land, 21 June 2001.

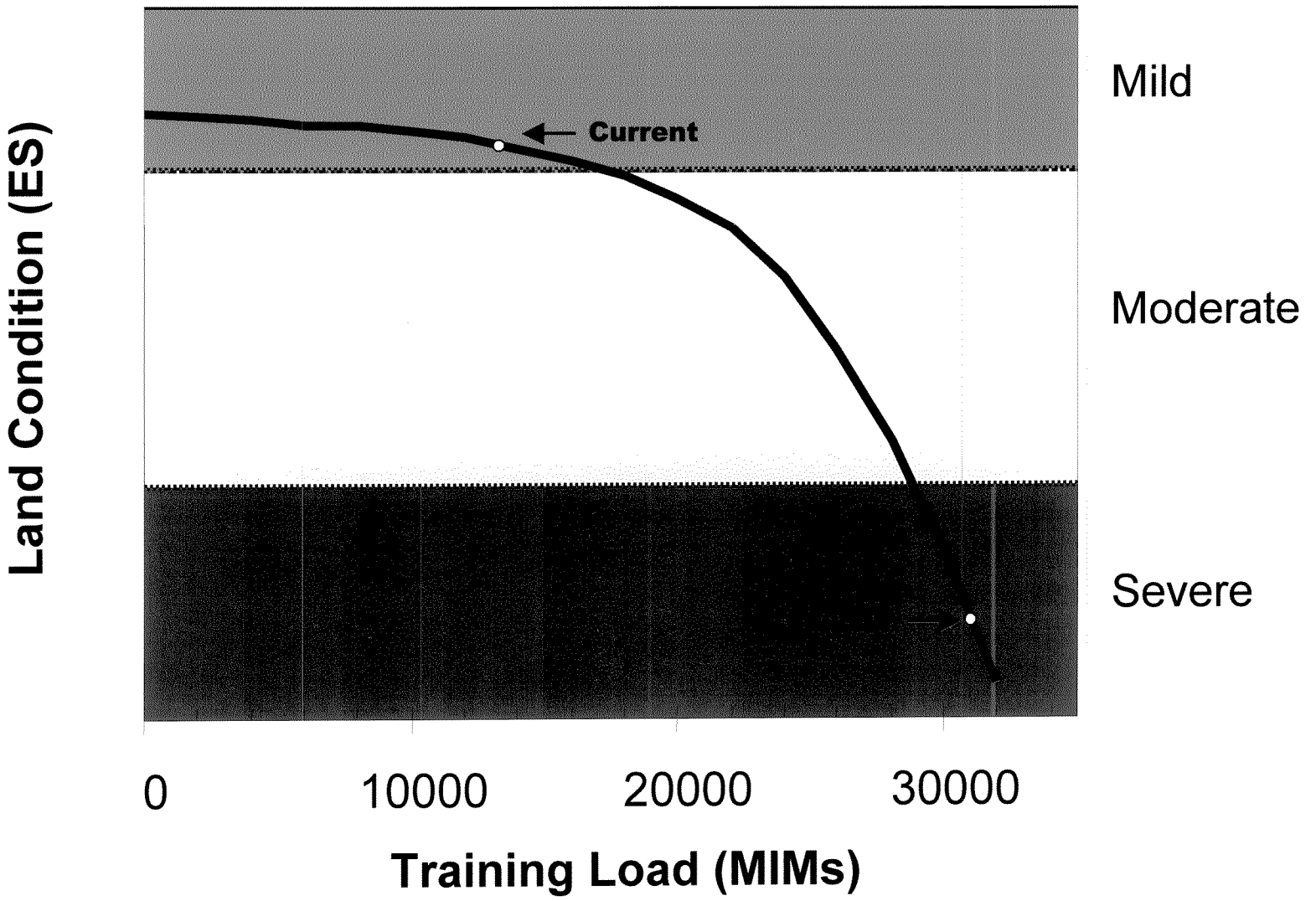
U.S. Army Training and Testing Area Carrying Capacity (ATTACC) Handbook, Version 1.1, March 1999.

ATTACC Training Model, MIMs by UIC, July 1998.

Material provided by USARHAW staff, May 2002.
Organizational charts and vehicle densities.
RFMSS 3.5 Training Utilization Reports, Sept. 2001 – Sept. 2002


MIMS CHANGES
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
MIMS
Existing Conditions
Transformation
11680
19145
16740
25855
1710
4335
7210
13770
13660
92795
EAST RG
SCHOFIELD BKS
DILLINGHAM
KAHUKU
PTA
AREAS

PTA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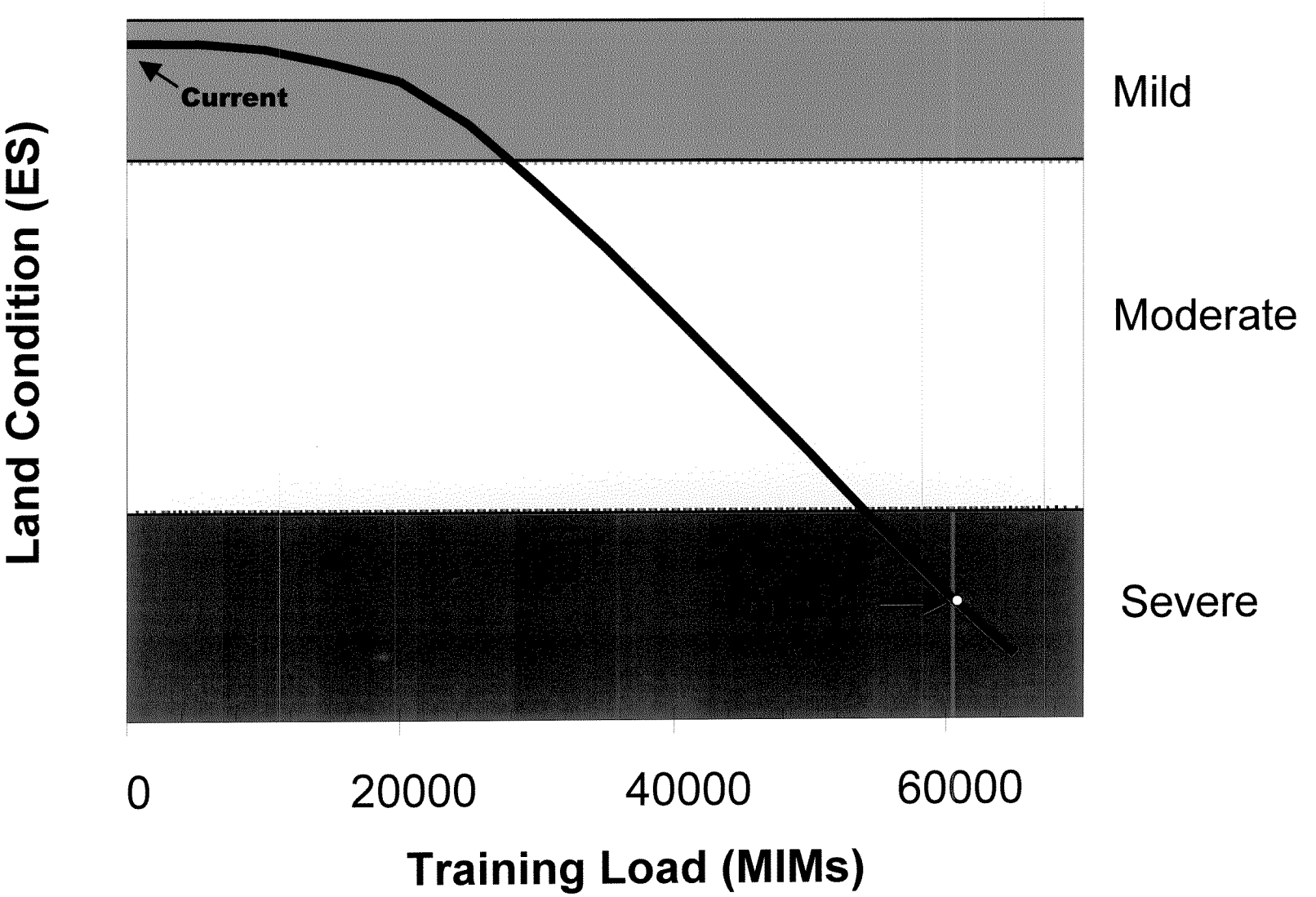
Current
Mild
Moderate
Severe
0
10000
20000
30000
Training Load (MIMs)

Keamuku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Moderate
Severe
Land Condition (ES)
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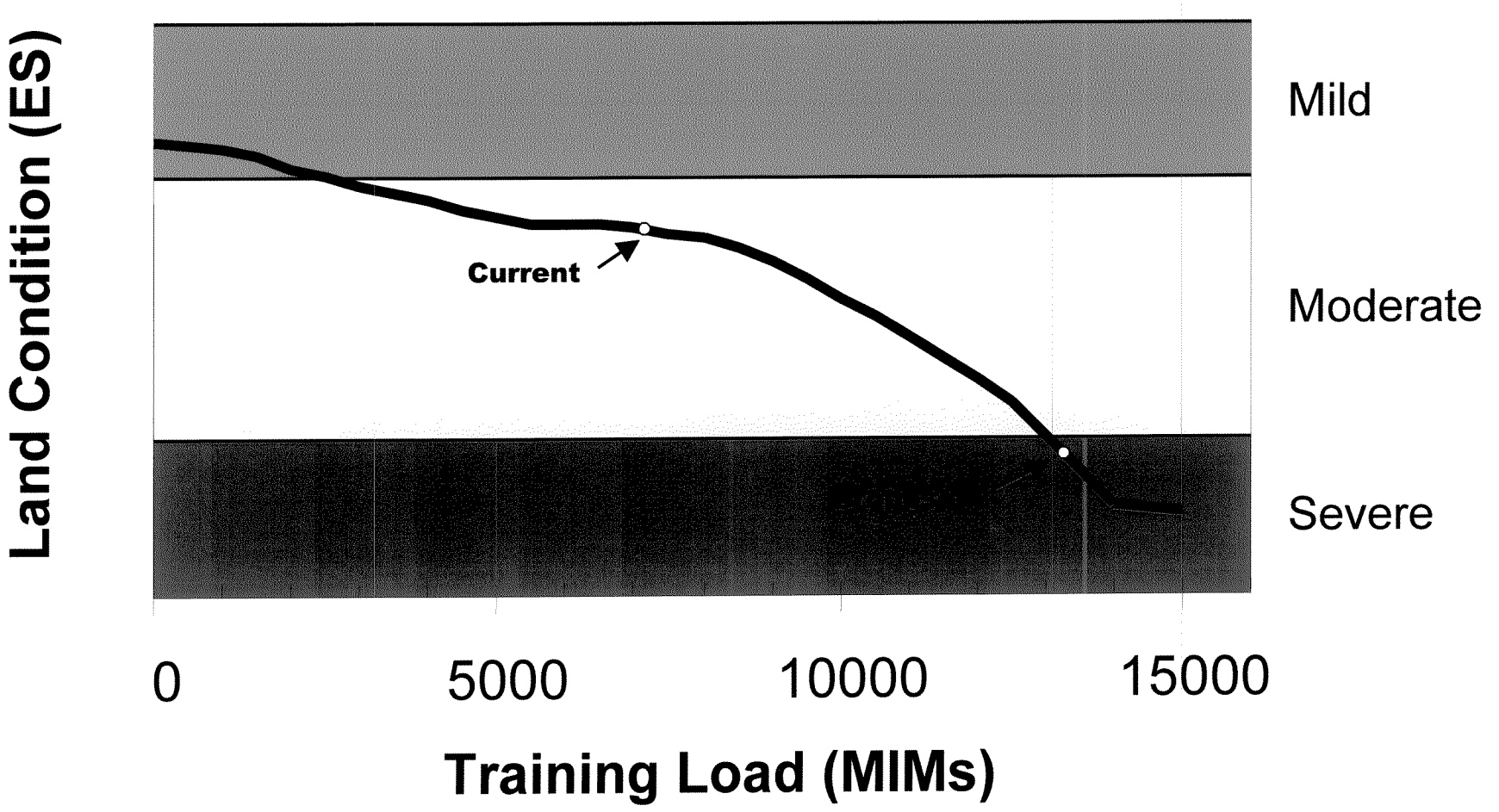
20000
40000
60000
Training Load (MIMs)

Kahuku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Current
Moderate
Severe
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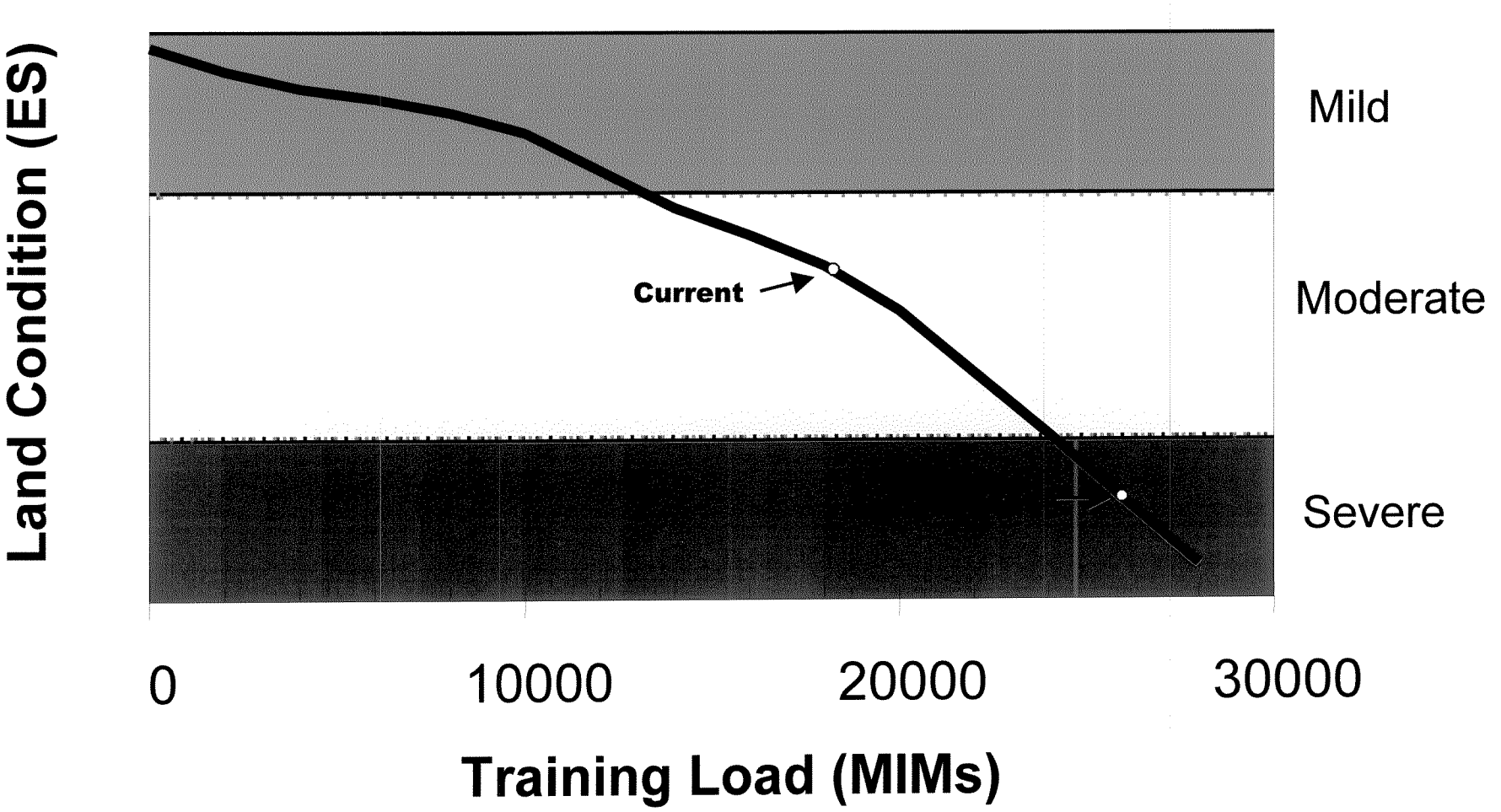
10000
15000
Training Load (MIMs)

Schofield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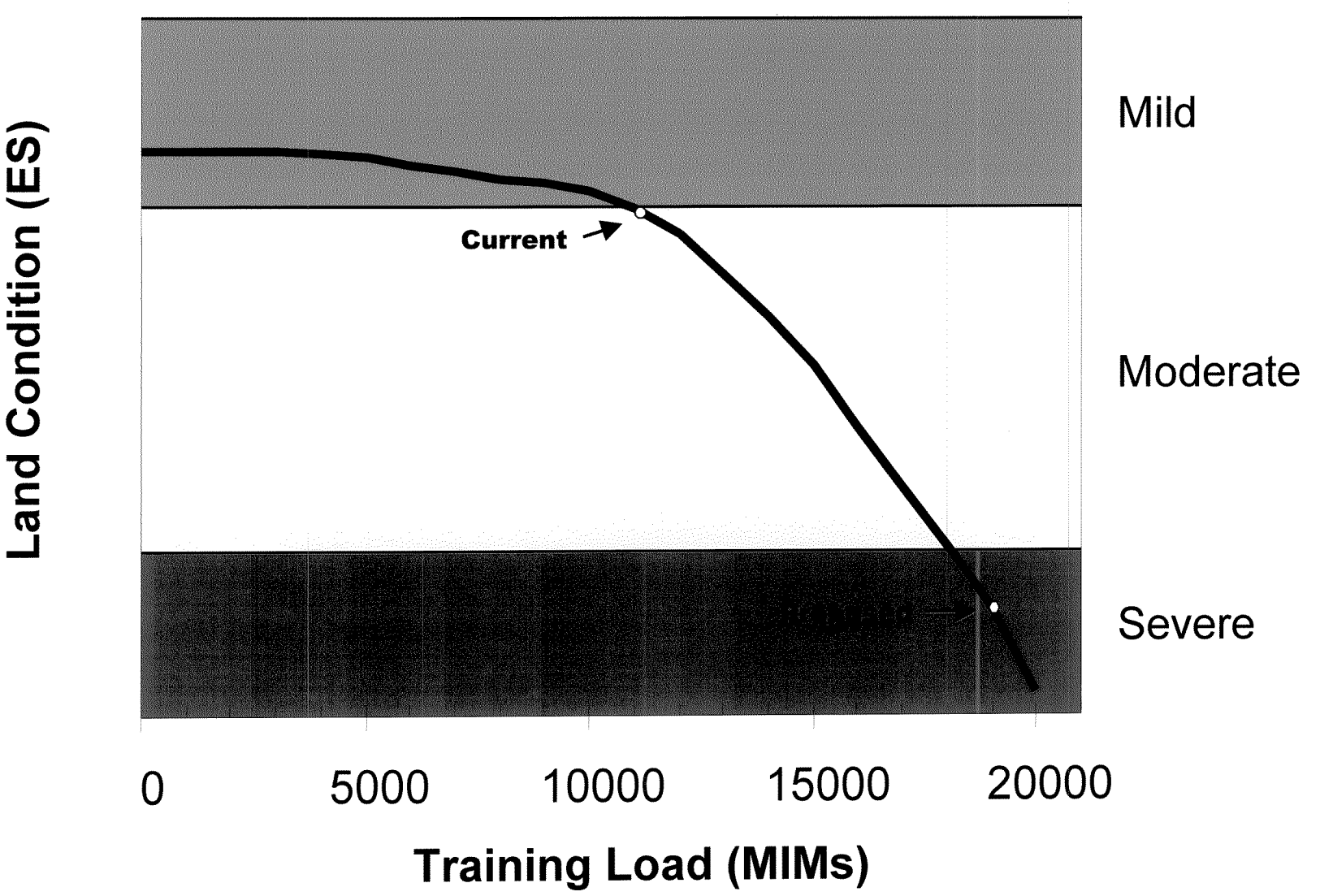
Current
Moderate
Severe
0
10000
20000
30000
Training Load (MIMs)

East Range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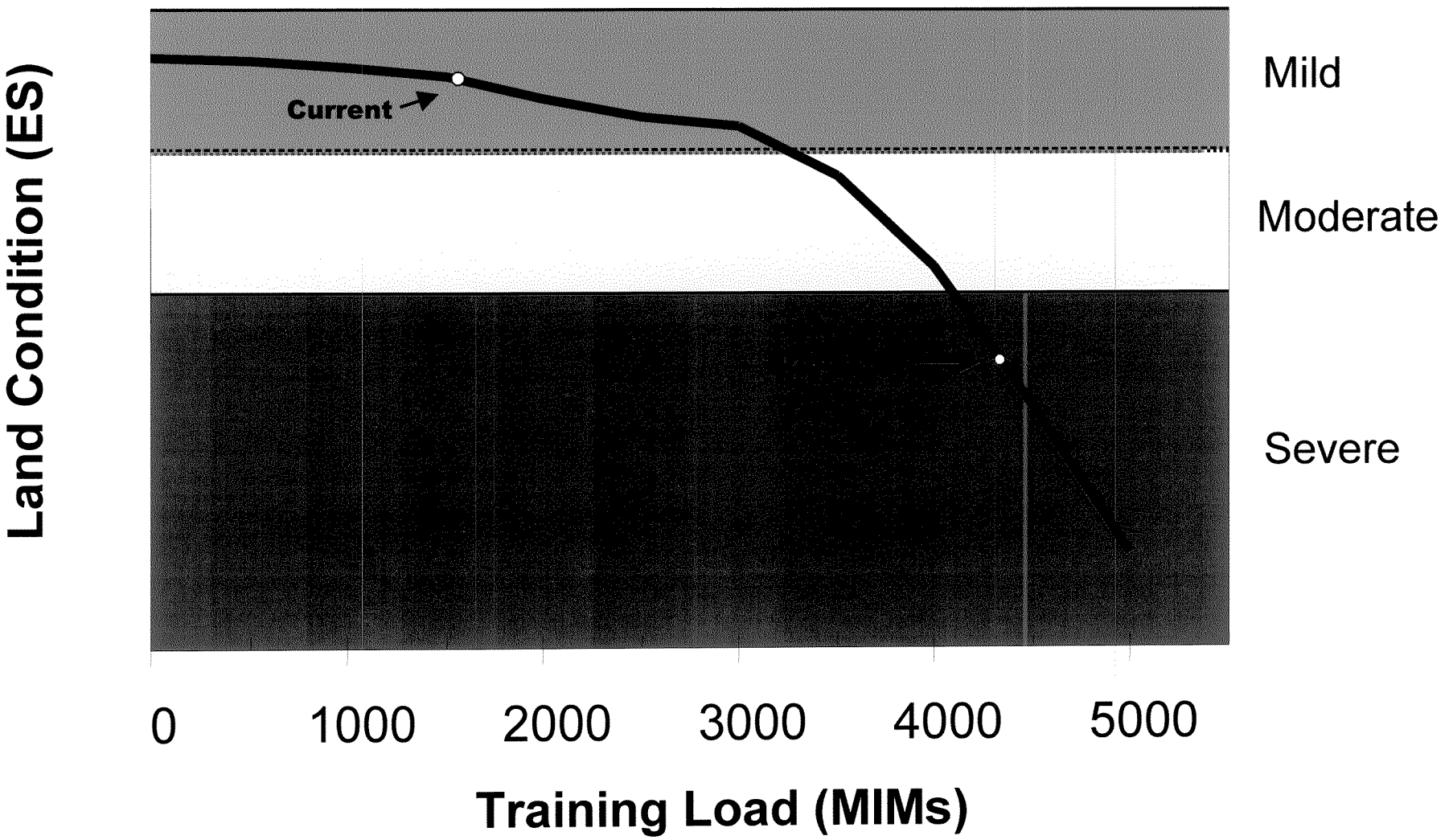
Mild
Current
Moderate
Severe
0
5000
10000
15000
20000
Training Load (MIMs)

Dillingham


Land Condition (ES)
Current
Mild
Moderate
Severe
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1000
2000
3000
4000
5000
Training Load (MIMs)

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